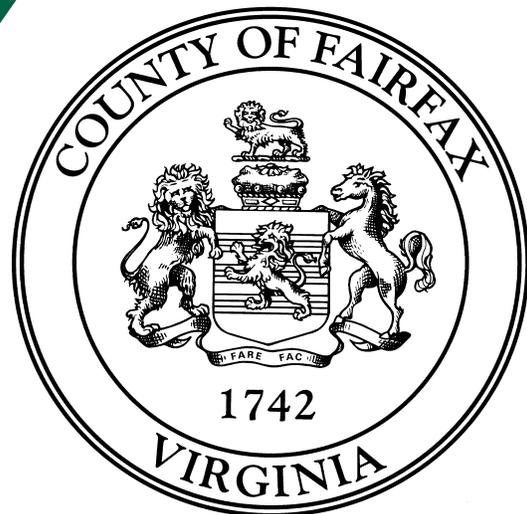


# **Fairfax County Police Officers Retirement System**

**A Pension  
Trust Fund of  
Fairfax County  
Virginia**



## **Comprehensive Annual Financial Report**

***For the Fiscal Year Ended June 30, 2000***





## FAIRFAX COUNTY

**BOARD OF TRUSTEES  
POLICE OFFICERS RETIREMENT SYSTEM**  
10680 Main Street, Suite 280  
Fairfax, Virginia 22030-3812

Telephone: (703) 279-8200 (800) 333-1633 FAX: (703) 273-3185

V I R G I N I A

November 30, 2000

Dear Members of the Board of Trustees:

I am pleased to submit to you the annual report of the Fairfax County Police Officers Retirement System ("System") for the fiscal year ended June 30, 2000. This annual report is provided as an aid to understanding the structure and evaluating the status of the System. The System's management is responsible for the accuracy of financial information contained herein.

The annual report for fiscal year 2000 consists of five sections: (1) an Introductory Section that contains this transmittal letter along with the organization structure and review of plan provisions; (2) a Financial Section that contains the opinion of the independent auditors, the financial statements of the System and required supplementary information; (3) an Investment Section that contains investment results; (4) the Actuarial Section that includes the independent actuary's certification letter, a summary of the results of the actuarial valuation, and actuarial procedures and assumptions; and (5) the Statistical Section that contains information regarding the System membership.

### **History**

The Fairfax County Police Officers Retirement System was created under the authority granted by Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia) on March 29, 1944 to provide defined benefit pension plan coverage for sworn full-time law enforcement officers of the Fairfax County Police Department. In 1981, Fairfax County enacted Article 7 of the Fairfax County Code which adopted and continued Chapter 303 as amended. There were 1,115 active members and 583 retirees participating in the System as of June 30, 2000.

### **Benefit Provisions**

The benefit provisions of the System are established by County Ordinance. The System provides normal service retirement and early service retirement benefits for members who attain age or service requirements. Coverage for service-connected disability benefits is immediate upon membership in the System. Ordinary (non-service related) disability benefits are provided after the attainment of five years of service. Members are vested after five years of service and are eligible for the benefits at the early or normal service retirement date.

# INTRODUCTORY SECTION

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## **Capital Markets, Economic Conditions and Outlook**

Fiscal year 2000 was another year of positive returns in the equity markets generally, but at rates that were below those of the extraordinary returns of the prior five years. The year was also characterized by significant volatility in the markets. A review of the capital markets and economic conditions during the year and the outlook for fiscal year 2001 is included as a foreword to the Investment Section of this report.

The System's investments earned a return of 7.8% for the year, net of investment management fees. This market return for fiscal year 2000 was slightly above the actuarial assumption of 7.5%.

After accounting for all cash flows, including contributions, expenses, and benefit payments, the market value of the System's assets increased 7.9%, from \$576.3 million on June 30, 1999 to \$621.9 million on June 30, 2000.

## **Major Initiatives**

The turn of the calendar to the year 2000 (Y2K) occurred without incident. This was accomplished as a result of months of significant effort by staff in planning for the new year. All internal software and hardware was reviewed and tested well in advance. A new retiree payroll system was developed, thoroughly tested, and installed. In addition to ensuring successful operation of internal systems after the turn of the year, staff closely followed the efforts of our custodian and external investment managers to be sure that our major service providers were taking the necessary steps to avoid any major impact from the conversion to the year 2000.

## **Financial Highlights**

### *Internal and Budgetary Controls*

The System's management is responsible for maintaining internal accounting controls to provide reasonable assurance that transactions are properly authorized and recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles. We believe the internal controls in effect during the fiscal year ended June 30, 2000, adequately safeguard the System's assets and provide reasonable assurance regarding the proper recording of financial transactions. In addition, the budget for the System is annually presented to and approved by the Board of Trustees and the County's Board of Supervisors.

### *Additions*

The primary sources of additions for the System include member and employer contributions as well as net investment income. Total contributions and net investment income for fiscal year 2000 totaled \$64.1 million, an increase of \$3.5 million versus fiscal year 1999.

**Table 1. Contributions and Investment Income**

	FY 2000 (millions)	FY 1999 (millions)	Increase/ (Decrease) Amount	Increase/ (Decrease) Percentage
Employer Contributions	\$12.0	\$10.7	\$1.3	12.1%
Member Contributions	7.5	6.9	0.6	8.7%
Net Investment Income	<u>44.6</u>	<u>43.0</u>	<u>1.6</u>	<u>3.7%</u>
	\$64.1	\$60.6	\$3.5	5.8%

*Contributions*

Contributions from Fairfax County increased 12.1% over the prior year and produced 18.7% of total additions. The increase in employer contributions was attributable to an increase in payroll, offset, in part, by a decrease in the employer contribution rate from 19.4% of payroll in FY 1999 to 18.4% in FY 2000. The decrease in the employer contribution rate was possible due to the strong investment gains of prior years which led to a decline in the amount required to amortize unfunded liabilities. Member contributions increased 8.7% over the prior year, also due to the higher payroll base, contributing 11.7% to total additions.

*Investments*

The net investment income portion of total additions increased by \$1.6 million or 3.7% in fiscal year 2000. Dividend and interest income increased by \$1.8 million or 9.6%. Realized and unrealized gains on investments were \$26.8 million, staying at the same level as FY 1999. Investment expenses increased by \$0.3 million or 11.4%. The market value of net assets increased to \$621.9 million from \$576.3 million.

*Deductions*

The deductions from the System include the payment of retiree and beneficiary payments, the refund of employee contributions to former members and administrative expenses. Deductions for fiscal year 2000 totaled \$18.5 million, an increase of \$1.4 million or 8.2% over the prior fiscal year.

**Table 2. Deductions by Type**

	FY 2000 (millions)	FY 1999 (millions)	Increase/ (Decrease) Amount	Increase/ (Decrease) Percentage
Benefits	\$17.8	\$16.4	\$1.4	8.5%
Refunds	0.5	0.5	0.0	0.0%
Administrative Expenses	<u>0.2</u>	<u>0.2</u>	<u>0.0</u>	<u>0.0%</u>
	\$18.5	\$17.1	\$1.4	8.2%

The increase in benefit payments to \$17.8 million was due both to an increase in the number of retirees and growth in the average benefit payment. The number of retirees and beneficiaries increased to 583 at June 30, 2000 from 560 a year earlier. Retirees also received a 2.6% cost-of-living increase effective July 1, 1999.

# INTRODUCTORY SECTION

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## **Funded Status**

An actuarial valuation of the System to determine funding requirements is performed annually. The System's funding policy provides for periodic employer contributions at actuarially determined rates which will remain relatively level over time as a percentage of payroll and will accumulate sufficient assets to meet the costs of benefit payments when due. The valuation of the System performed as of July 1, 1999 indicated that the ratio of assets accumulated by the System to total actuarial accrued liabilities for benefits increased from 98.1% to 103.2%. The Actuarial Section contains further information on the results of the July 1, 1999 valuation.

## **Investment Policies and Strategies**

The Board of Trustees has an adopted Statement of Investment Objectives and Policy. This Statement establishes the investment goals, guidelines, constraints and performance standards the Board of Trustees will use when exercising its fiduciary duties to manage the investment assets of the System. The Board operates in conformity with the standard of care required in making investments as stated in the Code of Virginia §26-45.1.A.

The Board receives quarterly reporting from staff to ensure compliance with its stated objectives and policy. Staff also monitors the performance of the System and its investment managers; rate of return information is included in the Investment Section.

Securities of the System except for mutual funds and a short-term investment fund are held by State Street Bank and Trust Company, as agent, in the System's name. State Street Boston Corporation, the parent company, carries Financial Institution Bond insurance coverage including a Computer Crime Policy. An additional Excess Securities policy covers all risk of physical loss to securities.

## **Other Information**

### *Independent Audit and Actuarial Certifications*

An independent auditors' report and certifications from the actuary are included in this report.

### *Acknowledgements*

The annual report of the Police Officers Retirement System was prepared by the System's staff under the leadership of the Board of Trustees. I would like to thank the staff who have worked hard throughout the year to ensure the successful operation of the System. This report is intended to provide complete and reliable information for determining the financial status of the System. It is being submitted to the Board of Supervisors and other interested parties.

Respectfully submitted,



Laurnz A. Swartz  
Executive Director

## BOARD OF TRUSTEES

### **Major Robert P. Fitzpatrick**

President

Member Trustee

*Term Expires: December 31, 2000*

### **Captain Arthur J. Hurlock, Jr.**

Vice President

Member Trustee

*Term Expires: December 31, 2002*

### **Robert L. Mears**

Treasurer

Fairfax County Director of Finance

Ex officio Trustee

### **Brant Baber**

Holland & Knight LLP

Board of Supervisors Appointee

*Term Expires: January 31, 2003*

### **Forrest E. Williams**

Prudential-Bache Securities, Inc.

Board of Supervisors Appointee

*Term Expires: January 31, 2002*

# INTRODUCTORY SECTION

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## ADMINISTRATIVE ORGANIZATION

### **Administrative Staff**

Laurnz A. Swartz  
*Executive Director*

Jeffrey A. Willison  
*Investment Manager*

Don A. McCorry  
*Retirement Administrator*

### **Professional Services**

#### **Actuary**

Milliman & Robertson, Inc.  
Actuaries  
Vienna, VA

#### **Auditor**

KPMG LLP  
Certified Public Accountants  
Washington, DC

### **Investment Managers**

Credit Suisse Asset Management  
New York, NY

Dodge & Cox, Investment Managers  
San Francisco, CA

Capital Guardian Trust Company  
Los Angeles, CA

ING Furman Selz Capital Management  
LLC  
New York, NY

Cohen & Steers Capital Management, Inc.  
New York, NY

PIMCO  
Newport Beach, CA

Janus Capital Corporation  
Denver, CO

Robert E. Torray & Co., Inc.  
Bethesda, MD

Oak Associates  
Akron, OH

#### **Attorney**

W. McCauley Arnold  
McCandlish & Lillard  
Fairfax, VA

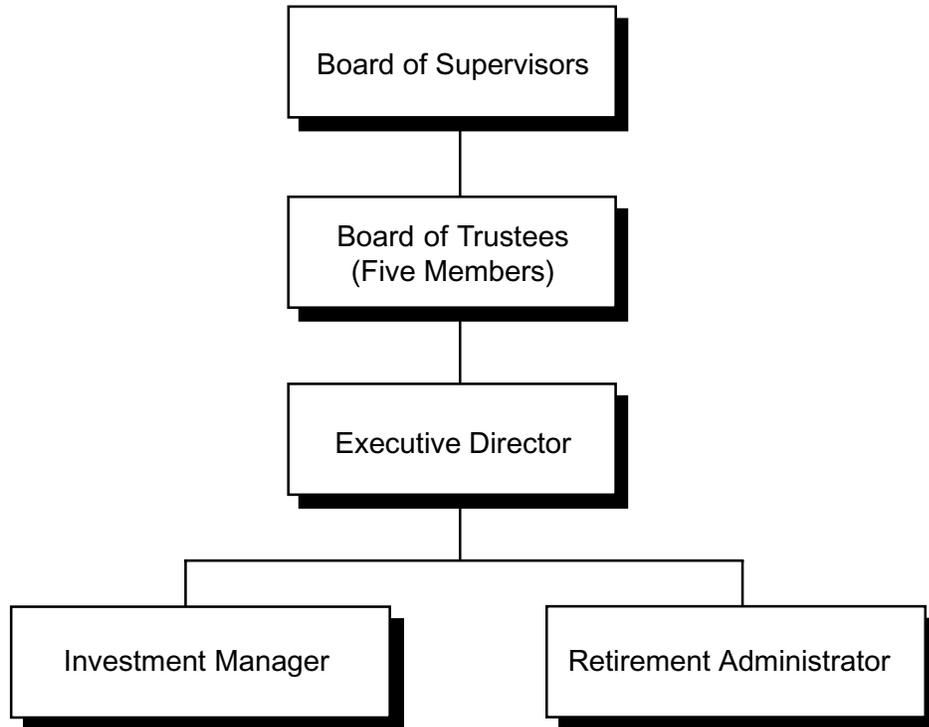
#### **Custodial Bank**

State Street Bank and Trust Company  
Boston, MA

### **Investment Consultant**

Mercer Investment Consulting, Inc.  
Atlanta, GA

## ORGANIZATIONAL CHART



# INTRODUCTORY SECTION

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## SUMMARY OF PLAN PROVISIONS

Membership in the Fairfax County Police Officers Retirement System includes full-time sworn law enforcement officers in the Fairfax County Police Department.

The general provisions of the Police Officers Retirement System are as follows:

**Contribution Rate:** 12% of base salary (including roll call and holiday pay). Police Officers do not contribute to Social Security except Police Officers hired after April 1, 1986 contribute to Medicare.

**Benefit:** 2½% of average final compensation (highest consecutive three years) times creditable service up to a maximum of 75%. For retirements after June 30, 2000, the benefit is computed at 2.8% of average final compensation. The total benefit is then increased by 3%. Those receiving service retirement benefits as of June 30, 2000, benefit amounts are increased by 12% effective July 1, 2000.

**Normal Retirement:** is either age 55 or at least 25 years of creditable service (20 years if sworn in before July 1, 1981).

**Early Retirement:** is 20 years of creditable service if sworn in on or after July 1, 1981.

**Deferred Vested Retirement:** is available for vested members (vesting is at 5 years of creditable service) who leave their contributions in the System when they terminate. These members are entitled to their normal retirement benefit based on service with the Police Department at age 55.

**Service-Connected Disability Retirement:** is available for members, regardless of their length of service, who become disabled as a result of a job-related illness or injury. Benefits for total disability are 66⅔% of their average final compensation if sworn in on or after July 1, 1981. If sworn in before July 1, 1981, the total disability benefit is based on 66⅔% of the salary the member would have received if he or she had not been disabled. Any member who is still disabled when they reach their normal retirement date will have their benefit reduced to 60% of the salary he or she would have received if he or she had not been disabled.

**Non-Service Connected Disability Retirement:** is available for vested members who become disabled due to an injury or illness that is not job-related. Normal retirement benefits are paid (minimum is 10% of the member's salary).

## SUMMARY OF PLAN PROVISIONS

(Continued)

**Death Benefits: *Before Retirement*** — An automatic monthly benefit is payable to the spouse and children. This benefit equals \$1,418.81 for the spouse (until remarriage before age 60) or surviving handicapped child (if there is no spouse) plus each eligible child receives \$567.52 up to a total family benefit of \$2,837.66 (these benefits are indexed to inflation). If the death occurred in the line of duty, the spouse or surviving handicapped child (if there is no spouse) may elect to receive 66<sup>2</sup>/<sub>3</sub>% of the member's regular salary at the time of death in lieu of the automatic benefits. If no automatic benefit is payable, contributions will be refunded to the member's beneficiary.

*After Retirement* — For those retiring on a regular service or service-connected disability retirement, an automatic monthly benefit is payable to the spouse and children. This benefit equals \$1,418.81 for the spouse (until remarriage before age 60) or surviving handicapped child (if there is no spouse) plus each eligible child receives \$567.52 up to a total family benefit of \$2,837.66 (these benefits are indexed to inflation). In addition, members who retire on a regular service retirement may elect a Joint and Contingent Spouse and Handicapped Child option which provides 100%, 66<sup>2</sup>/<sub>3</sub>%, or 50% of the retiree's reduced benefit to the spouse or eligible handicapped child for life. The member's annuity is reduced by a percentage based on the difference in age between the member and his or her spouse. If the spouse predeceases the member, the annuity is restored to what it would have been if this option had not been elected. If no automatic benefit is payable, contributions not yet paid out in benefits will be refunded to the member's beneficiary.

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Police Officers Letter**

# FINANCIAL SECTION

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## STATEMENTS OF PLAN NET ASSETS

as of June 30, 2000 and 1999

<b>Assets</b>	<b>2000</b>	<b>1999</b>
Equity in County's pooled cash and temporary investments	\$1,957,716	\$2,572,039
Accrued interest and dividends receivable	3,269,177	2,667,117
Investments, at fair value		
U.S. Government obligations	27,614,506	23,572,580
Asset-backed securities	110,729,368	102,423,215
Municipal bonds	466,146	814,793
Corporate bonds	67,079,597	57,572,611
Common and preferred stock	323,464,212	371,515,272
Mutual funds	76,511,946	4,302,523
Short-term investments	11,760,222	11,624,326
Cash collateral received under securities lending agreements	<u>69,580,246</u>	<u>45,809,850</u>
Total investments	<u>687,206,243</u>	<u>617,635,170</u>
Total assets	692,433,136	622,874,326
<b>Liabilities</b>		
Payable for collateral received under securities lending agreements	69,580,246	45,809,850
Accounts payable and accrued expenses	<u>990,862</u>	<u>801,918</u>
Total liabilities	<u>70,571,108</u>	<u>46,611,768</u>
<b>Net assets held in trust for pension benefits</b>	<b><u>\$621,862,028</u></b>	<b><u>\$576,262,558</u></b>
(A schedule of funding progress is presented on page 20.)		

See accompanying notes to financial statements.

# FINANCIAL SECTION

## STATEMENTS OF CHANGES IN PLAN NET ASSETS

For the Years Ended June 30, 2000 and 1999

<b>Additions</b>	<b>2000</b>	<b>1999</b>
Contributions		
Employer	\$11,950,073	\$10,685,734
Plan members	<u>7,521,134</u>	<u>6,861,605</u>
Total contributions	19,471,207	17,547,339
Investment income		
<i>From investment activities</i>		
Net appreciation in fair value of investments	26,764,785	26,720,927
Interest	13,945,633	12,460,270
Dividends	6,625,771	6,277,900
Other	<u>4,767</u>	<u>2,067</u>
Total income from investment activities	47,340,956	45,461,164
Less investment activity expenses		
Management fees	2,601,593	2,334,973
Custodial fees	115,629	102,596
Consultant	119,000	113,440
Allocated administrative expense	<u>93,779</u>	<u>79,494</u>
Total investment activity expenses	<u>2,930,001</u>	<u>2,630,503</u>
Net income from investment activities	44,410,955	42,830,661
<i>From securities lending activities</i>		
Securities lending income	3,307,373	2,551,992
Securities lending expenses		
Borrower rebates	3,048,303	2,317,236
Management fees	<u>90,680</u>	<u>82,172</u>
Total securities lending expenses	<u>3,138,983</u>	<u>2,399,408</u>
Net income from securities lending activities	<u>168,390</u>	<u>152,584</u>
Total net investment income	<u>44,579,345</u>	<u>42,983,245</u>
Total additions	64,050,552	60,530,584
<b>Deductions</b>		
Annuity benefits	15,660,231	14,435,055
Disability benefits	1,202,447	1,132,922
Survivor benefits	862,053	860,258
Refunds	530,622	464,747
Administrative expense	<u>195,729</u>	<u>158,989</u>
Total deductions	<u>18,451,082</u>	<u>17,051,971</u>
<b>Net increase</b>	45,599,470	43,478,613
<b>Net assets held in trust for pension benefits</b>		
Beginning of fiscal year	576,262,558	532,783,945
<b>End of fiscal year</b>	<b><u>\$621,862,028</u></b>	<b><u>\$576,262,558</u></b>

See accompanying notes to financial statements.

# FINANCIAL SECTION

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## NOTES TO THE FINANCIAL STATEMENTS

For the Year Ended June 30, 2000 and 1999

The Fairfax County Police Officers Retirement System (“System” or “plan”) is a legally separate single-employer defined benefit pension plan established under the Code of Virginia to provide defined benefit pension benefits to certain Fairfax County, Virginia’s (“County”) police and park police officers. As such, the System is considered part of the County reporting entity and its financial statements are included in the County’s general purpose financial statements as a pension trust fund.

### A. Summary of Significant Accounting Policies

*Basis of Accounting.* The System’s financial statements have been prepared under the accrual basis of accounting in accordance with accounting standards applicable to governmental units in the United States of America. Member and employer contributions to the plan are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due in accordance with the terms of the plan. The cost of administering the plan is paid by the System.

*Method Used to Value Investments.* Short-term investments are reported at cost, which approximates fair value. All other investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Asset-backed securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. The System records investment purchases and sales as of trade date. These transactions are not finalized until settlement date, which occurs approximately three business days after the trade date. The amounts of trade receivables and payables are not separately disclosed due to immateriality. Cash received as collateral on securities lending transactions and investments made with such cash are reported as assets along with a related liability for collateral received.

*Equity in County’s pooled cash and temporary investments.* The System maintains its cash with the County, which invests cash and allocates interest earned, net of a management fee, on a daily basis to the System based on the System’s average daily balance of equity in pooled cash. As of June 30, 2000 and 1999, the bank balance of the County’s public deposits was either insured by the Federal Deposit Insurance Corporation or through the State Treasury Board pursuant to the provisions of the Security for Public Deposit Act.

### B. Plan Description and Contribution Information

*Membership.* At July 1, 1999, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and beneficiaries receiving benefits	560
Terminated plan members entitled to but not yet receiving benefits	3
Active plan members	<u>1,039</u>
<b>Total</b>	<b><u>1,602</u></b>

## NOTES TO THE FINANCIAL STATEMENTS

(Continued)

*Plan Description.* The System is a single-employer defined benefit pension plan. The plan covers County police officers who are not covered by other plans of the County or the Virginia Retirement System and former Park Police officers who elected to transfer to the System effective January 22, 1983. Benefit provisions are established and may be amended by County ordinances. All benefits vest at five years of service. To be eligible for normal retirement, an individual must meet the following criteria: (a) if employed before July 1, 1981; attained the age of 55 or completed 20 years of service, or (b) if employed on or after July 1, 1981; attained the age of 55 or completed 25 years of service. The normal retirement benefit is calculated using average final compensation (i.e., the highest 78 consecutive two week pay periods) and years (or partial years) of service at date of termination. The plan provides that unused sick leave credit may be used in the calculation of average final compensation by projecting the final salary during the unused sick leave period. To be eligible for early retirement, the employee must have 20 years of service (does not apply if hired before July 1, 1981). Benefits are determined based on the normal retirement benefit calculated using average final compensation and service at early retirement actuarially reduced.

Annual cost-of-living adjustments are provided to retirees and beneficiaries equal to the lesser of 4 percent or the percentage increase in the Consumer Price Index for the Washington Consolidated Metropolitan Statistical Area.

*Contributions.* The contribution requirements of System members are established and may be amended by County ordinances. Member contributions are based on 12 percent of compensation. The County is required to contribute at an actuarially determined rate; the rates for the year ended June 30, 2000 and 1999 were 18.40 percent and 19.40 percent of annual covered payroll, respectively.

### C. Investments

The authority to establish the System is set forth in Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia). Section 26-40 of the *Code of Virginia* (Code) authorizes the System to purchase the following investments:

*Obligations of the Commonwealth of Virginia and its instrumentalities*

*U.S. Treasury and agency securities*

*Obligations of counties, cities, towns, and other public bodies*

*located within the Commonwealth of Virginia*

*Obligations of state and local governmental units within other states*

*Obligations of the International Bank for Reconstruction and Development*

*Obligations of the Asian Development Bank*

*Obligations of the African Development Bank*

In addition, the Code provides that the System may purchase other investments for pension funds (including common and preferred stocks and corporate bonds) that meet the standard of judgment and care set forth in Section 26-45.1 of the Code.

The System does not have investments (other than U.S. Government and U.S. Government guaranteed obligations) in any one organization that represent 5 percent or more of net assets available for benefits. All investments, except for the mutual funds, short-term investment fund, and short-term collateral investment pool, are held by an unaffiliated custodian in the name of the System. Investment decisions for these assets are made by the Board of Trustees or investment managers selected by the Board.

# FINANCIAL SECTION

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## NOTES TO THE FINANCIAL STATEMENTS

(Continued)

*Derivative financial instruments.* As permitted by the Code described above, the System invests in derivative instruments on a limited basis in accordance with Board of Trustees' policy. Derivative instruments are financial contracts whose value depends on the values of one or more underlying assets, reference rates or financial indexes. They include futures, forwards and options or swap contracts. In addition, some traditional securities can have derivative-like characteristics such as structured notes in which the return may be linked to one or more indexes, and asset-backed securities such as collateralized mortgage obligations which are sensitive to changes in interest rates and prepayments. Futures, forwards, options and swaps are generally not recorded on the financial statements, whereas structured notes and asset-backed investments generally are reported.

The System purchases foreign currency and forward currency contracts to effect settlement of securities trades in currencies other than US dollars and to protect the base currency (US dollars) from fluctuations in the exchange rates of foreign currencies. The credit risk of the forward currency contract lies with the potential nonperformance of the counterparty to the transaction. The maximum credit risk is usually equal to any unrealized profit on the contracts. Market risk in foreign currency contracts is related to adverse movements in currency exchange rates. During the year ended June 30, 2000, the System had sold foreign currency and forward currency contracts with a market value of \$32,954,693 and purchased foreign currency and forward currency contracts with a market value of \$19,217,360. During fiscal 1999 the System sold foreign currency and forward currency contracts with a market value of \$20,542,017 and purchased foreign currency and forward currency contracts with a market value of \$21,822,415.

In the area of on-financial statement instruments with derivative-like characteristics, the System invests in various asset-backed securities such as collateralized mortgage obligations and principal only strips. These securities were purchased to increase earnings, provide exposure to portions of the mortgage market or to control duration within the portfolio. The credit risk of these investments results from the creditworthiness of the counterparties to the contracts. There is an additional credit risk related to the creditworthiness of the related consumers or mortgagees. The market risk of these securities is dependent on changes in interest rates and the level of the underlying prepayments, i.e., when the underlying principal and interest are repaid by the mortgagors. At June 30, 2000 and 1999 the System held \$24,639,101 or 4.0% of the fair value of investments and \$26,383,605 or 5.5% of the fair value of investments, respectively, in on-financial statement instruments with derivative-like characteristics.

*Securities Lending.* Board of Trustees policies permit the System to lend its securities to broker-dealers and other entities (borrowers) for collateral that will be returned for the same securities in the future. The System's custodian is the agent in lending the plan's domestic securities for collateral of 102 percent and international securities for collateral of 105 percent. The custodian receives cash or securities as collateral. All securities loans can be terminated on demand by either the System or the borrower. Cash collateral is invested in the lending agent's collective collateral investment pool, which at year end has a weighted average duration of 74 days and a weighted average maturity of 485 days. The relationship between the maturities of the investment pool and the System's loans is affected by the maturities of securities loans made by other plan entities that invest cash collateral in the investment pool.

The System did not impose any restrictions during the period on the amounts of loans the lending agent made on its behalf, and the agent indemnifies the System by agreeing to purchase replacement securities, or return the cash collateral thereof, in the event a borrower fails to return loaned securities or pay distributions thereon. There were no such failures by any borrower during the fiscal year, nor

## NOTES TO THE FINANCIAL STATEMENTS

(Continued)

were there any losses during the period resulting from a default of the borrower or lending agent. Securities on loan for securities collateral are classified in the following schedule of investments according to the category of the collateral received. Securities on loan at year-end for cash collateral are unclassified as the cash collateral is invested in a collective collateral investment pool. At year end, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System.

As of June 30, 2000 and 1999, the market value of securities on loan were \$68,977,331 and \$44,438,019, respectively. Cash received as collateral and the related liabilities of \$69,580,246 as of June 30, 2000 and \$45,809,850 as of June 30, 1999 are shown on the Statements of Plan Net Assets. Securities received as collateral are not reported as assets since the System does not have the ability to pledge or sell the collateral securities absent borrower default.

*Categorization.* The System's investments are categorized to give an indication of the level of risk assumed by the System at year end. Category 1 includes investments that are insured or registered or for which the securities are held by the System or its agent in the System's name. Category 2 includes uninsured and unregistered investments for which the securities are held by a counterparty's trust department or agent in the System's name. Category 3 includes uninsured and unregistered investments for which the securities are held by a counterparty or its trust department or agent, but not in the System's name. All of the System's investments meet the criteria of Category 1, except investments in mutual funds, a short-term investment fund, a short-term collateral investment pool and those securities on loan for which the cash collateral is invested in the collateral investment pool. These investments by their nature are not required to be categorized.

A schedule of investments as of June 30, 2000 and 1999 follows:

	<b>2000</b>	<b>1999</b>
<b>Categorized investments</b>		
U.S. Government obligations	\$3,212,203	\$7,934,710
Asset-backed securities	107,276,672	102,423,215
Municipal bonds	466,146	814,793
Corporate bonds	65,837,047	57,112,602
Common and preferred stock		
Not on securities loan	283,584,431	343,175,132
On securities loan for securities collateral	<u>3,505,541</u>	<u>43,569</u>
Total categorized investments	463,882,040	511,504,021
<b>Uncategorized investments</b>		
Short-term investment fund	11,760,222	11,624,326
Mutual funds	76,511,946	4,302,523
Securities lending short-term collateral investment pool	69,580,246	45,809,850
Investments held by broker dealers under securities loans with cash collateral:		
U.S. Government obligations	24,402,303	15,637,870
Corporate bonds	1,242,550	460,009
Asset-backed securities	3,452,696	0
Common and preferred stock	<u>36,374,240</u>	<u>28,296,571</u>
Total uncategorized investments	<u>223,324,203</u>	<u>90,432,030</u>
<b>Total investments</b>	<b><u>\$687,206,243</u></b>	<b><u>\$617,635,170</u></b>

# FINANCIAL SECTION

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## NOTES TO THE FINANCIAL STATEMENTS

(Continued)

### D. Income Taxes

The Internal Revenue Service issued a determination letter on February 23, 1995, which stated that the System and its underlying trust qualify under the applicable provisions of the Internal Revenue Code and therefore are exempt from federal income taxes. In the opinion of the plan administrator, the System and its underlying trust have operated within the terms of the System and are qualified under the applicable provisions of the Internal Revenue Code.

## REQUIRED SUPPLEMENTARY INFORMATION

Six-year historical trend information about the System is presented herewith as required supplementary information. This information is intended to help users assess the System's funding status on a going-concern basis, assess progress made in accumulating assets to pay benefits when due, and make comparisons with other public employee retirement systems.

### SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability - AAL Entry Age (b)	Unfunded AAL-UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
7/1/94	\$253,506,303	\$311,661,932	\$58,155,629	81.34%	\$43,064,972	135.04%
7/1/95	284,506,069	346,712,876	62,206,807	82.06%	45,743,970	135.99%
7/1/96	343,288,369	388,917,113	45,628,744	88.27%	49,065,647	93.00%
7/1/97	399,772,825	414,534,604	14,761,779	96.44%	50,307,487	29.34%
7/1/98	434,259,212	442,727,265	8,468,053	98.09%	51,955,916	16.30%
7/1/99	503,649,251	487,951,047	(15,698,204)	103.22%	55,081,103	(28.50%)

Analysis of the dollar amounts of plan net assets, actuarial accrued liability, and unfunded actuarial accrued liability in isolation can be misleading. Expressing plan net assets as a percentage of the actuarial accrued liability provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system. Trends in the unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the system's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the system.

### SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended June 30	Annual Required Contribution	Percentage Contributed
1995	\$10,013,355	100%
1996	10,912,200	100%
1997	11,892,690	100%
1998	11,321,194	100%
1999	10,685,734	100%
2000	11,950,073	100%

# FINANCIAL SECTION

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## NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

Valuation date	July 1, 1999
Actuarial cost method	Entry age
Amortization method	Level percent closed
Remaining amortization period	Weighted average of 1.75 years
Asset valuation method	3-Year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.5%
Projected salary increases*	4.5%-8.0%
*Includes inflation at	4.0%
Cost-of-living adjustments	3.0%

The actuarial assumptions used have been recommended by the actuary and adopted by the System's Board of Trustees based on the most recent review of the System's experience, completed in 1996.

The rate of employer contributions to the plan is composed of the normal cost, amortization of the unfunded actuarial liability and an allowance for administrative expenses. The normal cost is a level percent of pay cost which, along with the member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial liability. The allowance for administrative expenses is based upon the plan's actual administrative expenses.

Investment gains have resulted in a negative unfunded actuarial liability as of the valuation date. The actuarial computation determined an employer contribution rate of 14.48%. Subsequent to the valuation, plan benefits were enhanced. For retirements after June 30, 2000, the average final compensation is multiplied by 2.8%, rather than 2.5% for retirements on or before June 30, 2000. In addition, those receiving retirement benefits as of June 30, 2000 receive a 12% increase in benefit amounts. The impact of investment gains and the plan enhancements described here result in the adoption of an employer contribution rate of 25.69% for the fiscal year ended June 30, 2001, an increase of 7.29% from the fiscal year 2000 rate of 18.40%.

## CAPITAL MARKETS, ECONOMIC CONDITIONS AND OUTLOOK

### *Fiscal-Year 2000 Review*

Fiscal-year 2000, ending June 30, proved to be another positive year for most equity markets worldwide, albeit at a much reduced rate than the 20+% average annualized returns achieved during the previous five years. The S&P 500 Index advanced 7.2%, marking the twelfth consecutive year of positive returns for the Index. Fixed income markets improved moderately over the previous year, returning 4.6% compared with 3.1%, as measured by the benchmark Lehman Brothers Aggregate Bond Index. US equity returns, for the first time in 6 years, failed to be the best performer among the major asset classes that we benchmark. The S&P 500 Index return of 7.2% paled in comparison to the results achieved by the MSCI EAFE (international developed country equities) Index — 17.2%, the Russell 2000 (domestic small-cap equities) Index — 14.3%, and the MSCI Emerging Markets Free (international developing country equities) Index — 9.5%.

Not unlike 1999, fiscal 2000 proved to be a very bumpy year as capital markets see-sawed between the positive influences of strong economic growth and the dampening effects of a determined Federal Reserve raising short-term interest rates to forestall inflationary pressures. Fiscal 2000 started off on the right foot as the S&P 500 Index surged on the anticipation of record corporate earnings growth. However, stocks floundered two weeks into the new fiscal year as surging commodity prices and higher interest rates took the equity markets down over 6%. Market leadership was concentrated in the technology-laden NASDAQ stocks, such as semiconductor and internet-related issues. The Federal Reserve raised the federal funds rate  $\frac{1}{4}\%$  on June 30, and again on the 24<sup>th</sup> of August, maintaining a tightening bias. The US equity markets ended the first half of fiscal 2000 (December) on a strong note, rebounding sharply from the weakness seen in the fiscal first quarter to hit a new high. The US economy continued to expand, consumer confidence rose to a 30-year high, and unemployment fell to a 29-year low of 4.1%. Prompted by higher oil prices and a shrinking labor market, the Federal Open Market Committee raised the federal funds rate by another  $\frac{1}{4}\%$  in November. Technology-related and telecommunications stocks again led the markets during this period; with the NASDAQ Index returning almost 50%, compared to about 15% for the S&P 500 Index. Moving through the third fiscal quarter, US markets experienced a wild ride. The quarter was marked by unprecedented volatility, with significant price moves on a daily basis. During the quarter the Dow Jones Industrial Average recorded 30 moves of 100 points or more (15 of which were more than 200 points). Momentum-oriented trends accelerated and investors focused on a small subset of TMT (telecommunications, media, and technology) stocks that displayed the highest growth in revenues and price strength, despite exhibiting negligible positive earnings. During March, higher oil prices, sky-high Internet valuations, and inflationary concerns caused investors to take profits in TMT stocks and rotate from “new economy” to “old economy” stocks. The US equity markets declined sharply in March, and the downward trend continued into the fiscal fourth quarter. Dampening investor’s enthusiasm further was a  $\frac{1}{2}\%$  increase by the Fed, growing concern over the creditworthiness of e-commerce companies, a court ruling to break up Microsoft into two separate companies, and the failure of WorldCom and Sprint to gain regulatory approval to merge. The S&P 500 Index declined 3.0% during the year’s final fiscal quarter, while the NASDAQ Index fell a sharper 13%.

The public real estate market (REITs), despite ending the year on an uptrend, suffered its third year of mediocre returns. Notwithstanding rising fundamentals, including higher rents and earnings, REITs were invariably negatively viewed as either “small-cap” plays, “value” plays, or on the wrong side of upward trending interest rates. Worthy of note, however, was the passage of the REIT Modernization Act (12/17/99), which allows REITs to own 100% of the stock of a taxable REIT subsidiary. The NAREIT Equity REIT Index returned 3.0% for the year, which barely brought the 3-year total return into positive territory at 0.4%

# INVESTMENT SECTION

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International equity markets experienced a sharp positive bounce in fiscal 2000. The MSCI EAFE Index rose 17.2%, driven by the anticipation of an economic rebound in Japan, and continued technological expansion in Europe. Emerging markets enjoyed a more normalized return pattern for fiscal 2000, capturing a 9.5% gain, and benefiting from lower interest rates and positive economic growth.

Fixed income markets experienced moderate gains during fiscal 2000 as the Lehman Brothers Aggregate Bond Index advanced 4.6% in total return and international bond returns rose 3.0%. Although the benchmark 30-year Treasury Bond Index began the year at a yield of 5.98% and concluded the year at 5.90%, there was much turbulence along the way. Yields rose through the first half of the fiscal year, peaking at 6.75% in January, reflecting the further Fed tightening, higher oil prices, the strong economy, and Y2K fears. Liquidity declined significantly as the calendar year-end approached, as no dealer or investor wanted to be holding excess inventory. This caused spreads to widen substantially. Passing midyear, fixed income markets shrugged off the Y2K non-event, and rates steadily declined. The rate decline was driven in part by technical factors relating to the Treasury's announced treasury bond buyback and reduced issuance resulting from the budget surplus. By fiscal year-end, bonds were stabilizing at just below the 6.0% level, largely due to the release of weak economic data that was interpreted by some to indicate that the Federal Reserve's 1<sup>3</sup>/<sub>4</sub>% rate increases over the previous 12 months were finally slowing the economy.

## **System**

Within this volatile capital market environment the System's investments advanced 7.8% for the fiscal year 2000, net of investment management fees. This achievement was below the 17.8%, 22.1% and 8.6% returns of the prior three years, and modestly above the System's actuarial assumption of a 7.5% net rate of return. The market value of the System's net assets increased 7.9%, from \$576.3 million on June 30, 1999, to \$621.9 million on June 30, 2000. At year-end 2000, the System's investments were allocated as follows: Domestic and international equities – 54.3%; Fixed income securities – 34.4%; Publicly-traded equity REITs – 11.0%; and Cash-equivalents — 0.3%.

## **Outlook**

Looking forward to fiscal year 2001, the Federal Reserve is expected to move to the sidelines as the economy slows to more normalized levels. The tightening of monetary policy and the attendant contraction in money growth that began in mid-1999 should be sufficient to produce a GDP-rate slowdown from the 4.8% and 5.6% rates of the last two quarters of fiscal 2000 to a more reasonable 3.0% GDP growth rate in the first quarter of 2001. We expect this consumer-led slowdown to persist through most of fiscal 2001. Inflation continues to remain muted by booming productivity and a strengthening dollar, although high oil prices continue to put a "tax" on the economy. Despite an overall economic slowdown, many see a continuation of double-digit increases in real business spending and exports, which could support good earnings levels for the export-sensitive capital goods and technology sectors.

We expect that the trend of increasing volatility in capital markets will likely continue through 2001. The bull market, which began 10 years ago in October 1990, has pushed the S&P 500 Index up 372%, or 19.4% annualized. We believe this performance is unsustainable, and, barring a recession, would expect to see equity markets return to a more normal 8% - 12% range.

The System's investments continue to be well positioned and diversified. Any short-run downturn in the bond and equity markets would not have a material effect on the funded status of the System.

# INVESTMENT SECTION

## ASSET ALLOCATION BY CATEGORY AND INVESTMENT MANAGER

June 30, 2000

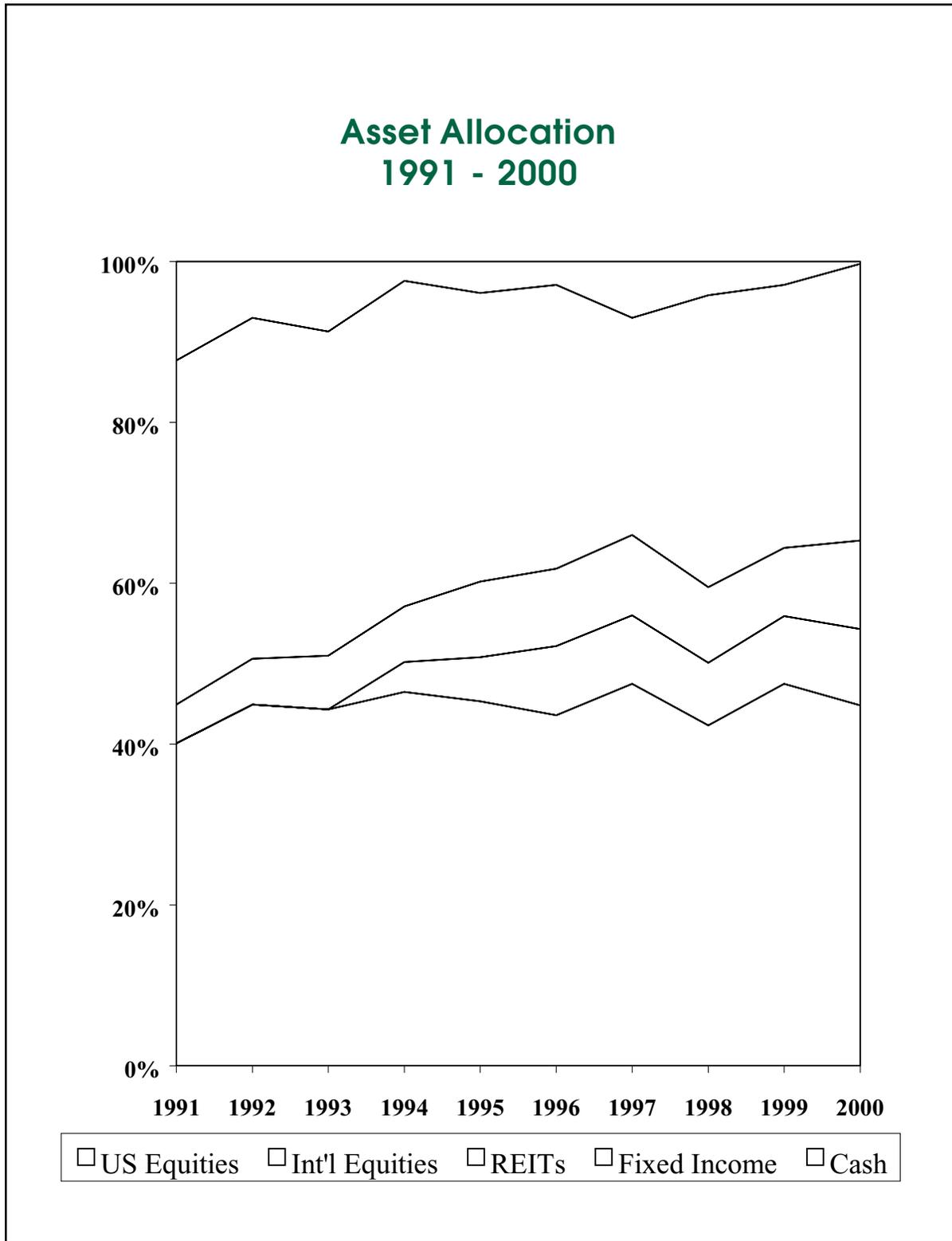
Asset Class Manager	Investment Style	Total Assets	% of Total Assets
<b><i>Domestic Equities</i></b>			
Robert E. Torray	Active Large Cap Value	\$70,644,396	11.3%
Furman Selz	Active Small Cap Growth	60,334,128	9.7%
Janus Capital	Active Large Cap Growth	48,314,279	7.8%
Oak Associates	Active Large Cap Growth	27,401,691	4.4%
PIMCO Stocksplus LP *	Enhanced Large Cap Index	72,272,011	11.6%
<b><i>International Equities</i></b>			
Capital Guardian	Active Developed Markets	50,284,209	9.5%
<b><i>Real Estate</i></b>			
Cohen & Steers	Active Equity REITs	68,246,194	11.0%
<b><i>Domestic Fixed Income</i></b>			
Dodge & Cox	Active Domestic Core	97,130,437	15.6%
<b><i>Global Fixed Income</i></b>			
Credit Suisse	Active Global Core	117,245,391	18.8%
<b><i>Cash Held by County Treasurer</i></b>			
	Active Short Term	1,980,101	0.3%
<b>Total Assets**</b>		<b>\$622,852,890</b>	<b>100.0%</b>

\* Pooled Fund

\*\* Without Cash Collateral

# INVESTMENT SECTION

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# INVESTMENT SECTION

## LIST OF LARGEST ASSETS HELD

June 30, 2000

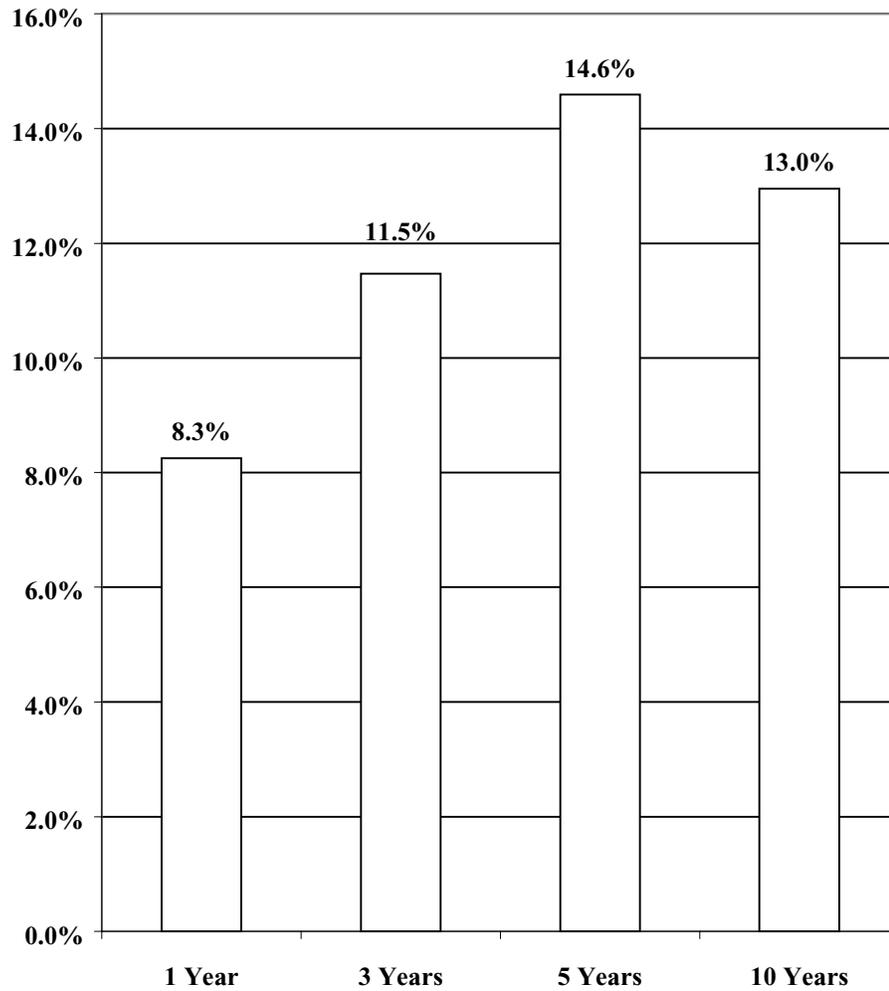
<b>Fifteen Largest Equity Holdings</b>	<b>Shares</b>	<b>Market Value</b>
Hughes Electronics (GM Class H)	84,000	\$ 7,371,000
Cisco System, Inc.	80,605	\$ 5,123,455
Boston Scientific	217,500	\$ 4,771,406
Equity Office Properties Trust	162,800	\$ 4,487,175
Vornado Realty Trust	124,600	\$ 4,329,850
Nokia Corp. (ADR)	83,260	\$ 4,157,796
Avalon Bay Communities	98,600	\$ 4,116,550
Abbott Labs	84,300	\$ 3,756,619
Starwood Hotels & Resorts	112,600	\$ 3,666,538
Equity Residential Properties Trust	76,900	\$ 3,537,400
Walt Disney Company	85,600	\$ 3,322,350
Clear Channel Communications	42,950	\$ 3,221,250
Prologis Trust	151,000	\$ 3,218,188
Apartment Investment & Mgt. Co.	74,200	\$ 3,209,150
General Electric	57,405	\$ 3,042,465

<b>Fifteen Largest Fixed Income Holdings</b>	<b>Interest Rate</b>	<b>Maturity Date</b>	<b>Market Value</b>
Federal National Mortgage Assn. Single Family July 30-year TBA	8.000%	July 31, 2030	\$15,761,233
United States Treasury Note	7.250%	May 15, 2004	\$13,924,035
Federal National Mortgage Assn. Single Family July 30-year TBA	7.000%	July 31, 2030	\$12,478,700
Federal National Mortgage Assn. Single Family July 30-year TBA	7.500%	July 31, 2030	\$ 8,674,864
Federal National Mortgage Assn. Mortgage Pool	6.000%	March 25, 2008	\$ 4,818,750
Federal Home Loan Mortgage Corp. Mortgage Pool	6.000%	October 15, 2008	\$ 3,636,300
Federal Home Loan Mortgage Corp. Mortgage Pool	7.000%	August 15, 2007	\$ 3,473,750
Federal National Mortgage Assn. Mortgage Pool	7.125%	February 15, 2005	\$ 3,273,236
Federal National Mortgage Assn. Mortgage Pool	7.125%	January 15, 2030	\$ 3,015,930
Federal National Mortgage Assn. Mortgage Pool	6.250%	March 25, 2009	\$ 2,880,000
United States Treasury Note	3.875%	January 15, 2009	\$ 2,806,367
Federal National Mortgage Assn. Mortgage Pool	7.250%	May 15, 2030	\$ 2,605,769
United States Treasury Note	5.500%	July 31, 2030	\$ 2,488,675
Federal Home Loan Mortgage Corp. Mortgage Pool	6.500%	January 15, 2008	\$ 2,442,175

# INVESTMENT SECTION

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## Compound Annual Return on Investment Portfolio



*Returns are gross of expenses*



## FOREWORD TO THE ACTUARIAL SECTION

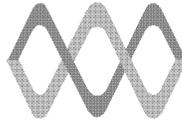
### Valuation Comments

This report represents the results of the July 1, 1999 actuarial valuation of the Fairfax County Police Officers Retirement System. The primary purposes of performing the valuation are as follows:

- to determine the contributions to be paid to the Plan in Fiscal Year 2001
- to disclose asset and liability measures as of July 1, 1999
- to analyze and report on trends in the Plan's contributions, assets and liabilities over the past several years.

Since this report was released, the County Ordinance has been amended to increase the benefit multiplier from 2.5% to 2.8% of final average compensation per year of service. A comparable increase (12% of benefits in pay status) was also granted to retirees. The effective date of this amendment is July 1, 2000. Had these improvements been in place on the July 1, 1999 valuation date, the actuarial liability would have been higher by \$55 million.

The County contribution would have been higher by 11.21% of payroll, made up of an increase in the normal cost of 2.56% and an increase in the amortization of unfunded liability component of 8.65%. The County contribution to be made in Fiscal Year 2001 is the sum of this 11.21% of payroll and the 14.48% of payroll contribution rate as developed in the 1999 valuation, for a total of 25.69% of payroll.



## MILLIMAN & ROBERTSON, INC.

Actuaries & Consultants

*Internationally WOODROW MILLIMAN*

Suite 1000, 8000 Towers Crescent Drive, Vienna, VA 22182-2700

Telephone: 703/917-0143

Fax: 703/827-9266

June 28, 2000

Board of Trustees  
Fairfax County Police Officers  
Retirement System  
10680 Main Street - Suite 280  
Fairfax, VA 22030-3805

Dear Members of the Board:

At your request, we have performed our annual actuarial valuation of the Fairfax County Police Officers Retirement System as of July 1, 1999. The results of the valuation are contained in this report.

### **Funding Objective**

The funding objective of the System is to establish contribution rates which, over time, will remain level as a percent of payroll. In order to achieve this, a contribution rate has been determined which will provide for current cost (i.e., normal cost expressed as a level percent of payroll) plus level percent of payroll amortizations of each layer of the unfunded liability over a 15 year period. This funding objective is currently being realized.

### **Assumptions**

The actuarial assumptions used in this valuation have been recommended by the actuary and adopted by the Board of Trustees based upon the most recent review of the System's experience completed in 1997. We believe the assumptions used, in the aggregate, represent our best estimate of future experience of the plan.

The assumptions and methods used in performing this valuation meet the parameters set for disclosure presented in the financial section by Government Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*.

### **Reliance on Others**

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found the data to be reasonably consistent and comparable with data used in the prior valuation.

Albany, Atlanta, Boise, Boston, Chicago, Dallas, Denver, Hartford, Houston, Indianapolis, Irvine, Los Angeles, Milwaukee, Minneapolis, New York, Omaha, Philadelphia, Phoenix, Portland, ME, Portland, OR, St. Louis, Salt Lake City, San Diego, San Francisco, Seattle, Tampa, Washington, D.C., Bermuda, Tokyo  
WOODROW MILLIMAN Member Firms in Principal Cities Worldwide

Board of Trustees Fairfax County  
Police Officers Retirement System  
June 28, 2000  
Page 2

## **Supporting Schedules**

We were responsible for all supporting schedules to be found in the Actuarial Section.

We were responsible for all years of the Schedule of Funding Progress, Schedule of Employer Contributions and Notes to Trend Data shown in the Financial Section.

## **Compliance with Code of Virginia §51.1-800**

Code of Virginia §51.1-800 requires that the benefits provided a retiree at age 65 from a local retirement system equal or exceed two-thirds of the allowance to which the employee would be entitled under the provisions of the Virginia Retirement System (VRS). The Board of Trustees of the VRS is to determine whether a local system satisfies this condition, taking into account differences in member contributions between the local system and the VRS.

Although there is no formal procedure for making this comparison, we have compared the least valuable accrual rate under the Police Officers' Plan to the most valuable accrual rate under the VRS, making adjustments for the fact that employee contributions are required in excess of the VRS 5% rate. The employer provided accrual rates do exceed  $\frac{2}{3}$  of the employer provided accrual rates under the VRS plan.

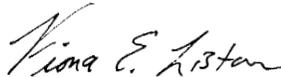
I certify that, to the best of my knowledge and understanding, the Fairfax County Police Officers Retirement System satisfies the requirements of the Code of Virginia §51.1-800.

## **Certification**

On the basis of the foregoing, we certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Guides to Professional Conduct, Amplifying Opinions, and supporting Recommendations and Interpretations of the American Academy of Actuaries.

Respectfully submitted,

MILLIMAN & ROBERTSON, INC.



Fiona E. Liston, F.S.A.  
Consulting Actuary

MILLIMAN & ROBERTSON, INC.

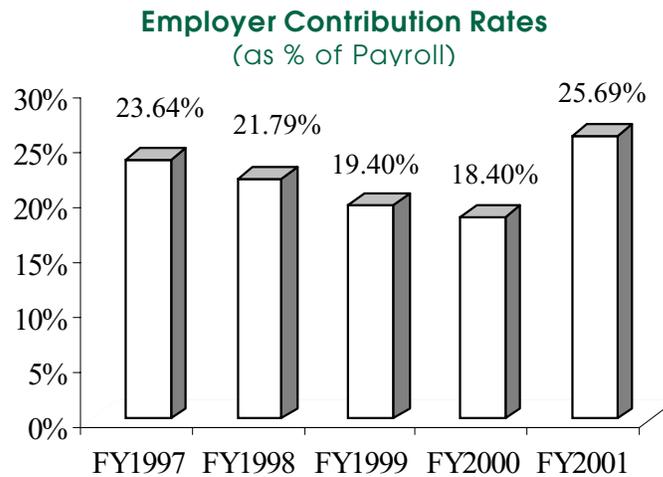
# ACTUARIAL SECTION

## SUMMARY OF VALUATION RESULTS

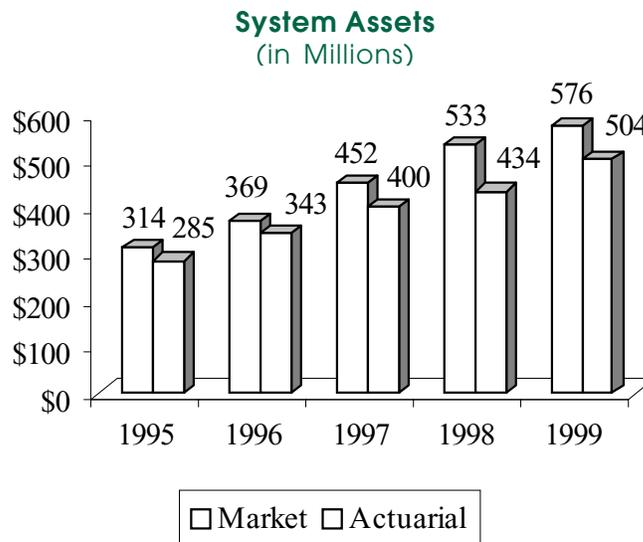
### Overview

This report presents the results of our July 1, 1999 actuarial valuation of the Fairfax County Police Officers Retirement System.

The major findings of the valuation are summarized in the following charts.



*The employer contribution rate for FY 2001 is equal to the 14.48% developed in this valuation report plus 11.21% to provide for the cost of plan improvements.*



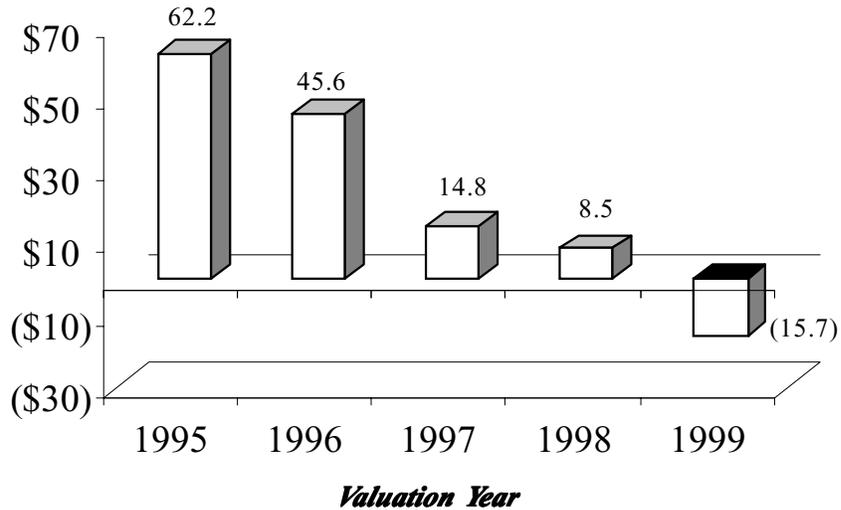
*The rate of return this year on the market value of assets was 8.06%, down from last year's return of 17.16%. The System still has a large cushion of \$72 million against future possible adverse performance.*

## SUMMARY OF VALUATION RESULTS

(Continued)

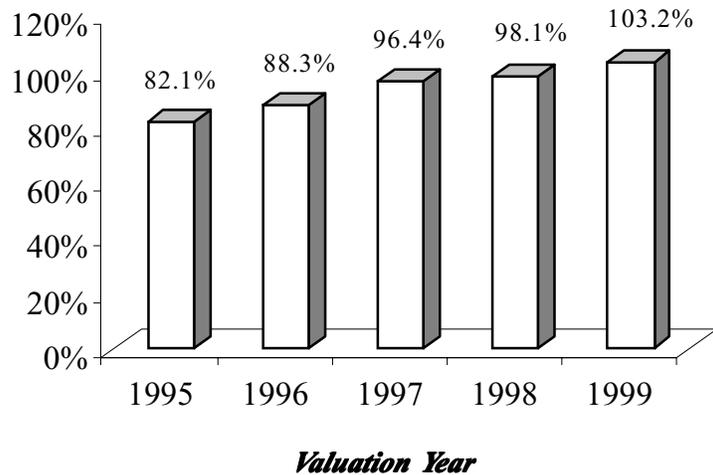
### Unfunded Actuarial Liability

(in Millions)



*This is the first year that the Police Officers Retirement System has seen a negative unfunded liability.*

### Funding Ratio



*The ratio of actuarial assets to the actuarial accrued liability increased over the past year. This is the GASB #25 measure of funding progress.*

# ACTUARIAL SECTION

## SUMMARY OF VALUATION RESULTS

(Continued)

### Summary of Results

This table compares the principal results from the 1998 and 1999 valuations. The 1999 liabilities do not reflect any additional amounts for the potential impact of the policy change on partial duty positions.

### SUMMARY OF PRINCIPAL RESULTS

<b>Participant Data</b>	<b>July 1, 1998</b>	<b>July 1, 1999</b>	<b>Percent Change</b>
Number of:			
Active Members	1,030	1,039	+ 0.9%
Retired Members and Beneficiaries	486	514	+5.8%
Disabled Members	46	46	-
Vested Former Members	2	3	+ 50.0%
Annual Salaries of Active Members	\$47,431,765	\$54,105,856	+ 14.1%
Annual Benefits for Retired and Disabled Members, and Beneficiaries	\$15,725,197	\$17,149,399	+ 9.1%
<b>Assets and Liabilities</b>	<b>July 1, 1998</b>	<b>July 1, 1999</b>	<b>Percent Change</b>
Total Actuarial Liability	\$ 442,727,265	\$ 487,951,047	+10.2%
Assets for Cost Purposes	\$ 434,259,212	\$503,649,251	+ 16.0%
Unfunded Actuarial Liability	\$ 8,468,053	\$ (15,698,204)	-285.4%
<b>Contribution Results</b> <i>(as percent of payroll)</i>			
Employer Normal Cost Rate	12.29%	12.29%	
Unfunded Actuarial Liability Contribution	2.91	(0.85)	
Administrative Expenses	<u>0.30</u>	<u>0.30</u>	
Total Employer Contribution	15.50%	11.74%	
Contingency for Policy Change in Partial Duty Positions	<u>2.90%</u>	<u>2.74%</u>	
Total Employer Contribution	18.40%	14.48%	

## SUMMARY OF VALUATION RESULTS

(Continued)

### Valuation Highlights

#### System Assets

As of July 1, 1999, the System had assets at market value of \$576.3 million, as compared to \$532.8 million as of July 1, 1998. The increase of \$43.5 million was attributable to the following:

- an increase of \$17.5 million due to employer and member contributions;
- a decrease of \$17.1 million due to payment of System benefits and expenses;
- an increase of \$43.1 million due to System investment experience (realized and unrealized).

When measured on an actuarial basis for contribution purposes (in order to smooth the peaks and valleys of market fluctuations), System assets were \$503.6 million as of July 1, 1999, up from \$434.3 million as of July 1, 1998. For valuation purposes, we capture the market value of assets at July 1 of each year.

Overall, the rate of return on System assets during the year was 8.06% on a market value basis and 15.86% on an actuarial basis.

#### System Liabilities

Two types of liabilities are presented in this report; actuarial liabilities and the liability for benefits accrued to date. Actuarial liabilities are developed and used for ongoing funding purposes and include a portion of future anticipated pay increases and service credit. This measure is also used as the measurement of actuarial accrued liability required to be disclosed under Government Accounting Standards Board Statement No. 25.

The liability for benefits accrued to date, which is used for accounting purposes, measures the present value of all future System benefits based on service to date. In this report we present a measure of the liability for benefits accrued which conforms with Statement No. 35 of the Financial Accounting Standards Board.

As of July 1, 1999, the System actuarial liabilities were \$487.9 million, as compared to \$442.7 million as of July 1, 1998. When measured against System assets (actuarial value) of \$503.6 million, there are System unfunded actuarial liabilities of negative \$15.7 million. This compares to \$8.5 million of unfunded actuarial liabilities as of July 1, 1998.

Viewed another way, the ratio of assets to actuarial liabilities increased from 98.1% (July 1, 1998) to 103.2% (July 1, 1999).

With respect to the liabilities for benefits accrued as of the valuation date, this valuation shows a liability under FASB rules of \$407.3 million as compared to \$371.1 million as of July 1, 1998.

# ACTUARIAL SECTION

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## SUMMARY OF VALUATION RESULTS

(Continued)

Since these liabilities are based upon a current “snapshot” of members’ pay and service, the common approach is to compare this liability with the market (i.e. current) value of System assets. This comparison as of July 1, 1999, shows that the ratio of System assets (market value) to liabilities accrued to date under FASB Statement 35 has decreased from 143.6% to 141.5%.

### System Contributions

Contributions to the System include a “normal cost rate” which is to cover a portion of projected liabilities on account of service of members during the year following the valuation date.

In addition, an unfunded actuarial liability contribution is made which, together with assets on hand, will fund the portion of projected liabilities on account of service rendered prior to the valuation date.

Finally, a provision for System administrative expenses is made by adding 0.30% of member payroll to the total contribution.

As determined by the valuation just completed, the employer normal cost rate is 12.29% of member payroll. The unfunded actuarial liability rate is (0.85%) of payroll. Together with the administrative expense rate, this results in a total employer contribution rate as of July 1, 1999 of 11.74% of payroll compared with a July 1, 1998 rate of 15.50% of payroll. In addition to the calculated rate of 11.74%, we are recommending that an additional 2.74% be budgeted to account for the increase that might occur due to the implementation of the County’s policy on partial duty positions.

The decrease in the employer contribution rate as a percentage of payroll is attributable to the following:

July 1, 1998, employer contribution rate	18.40 %
Decrease due to asset gains	(5.67)
Increase due to ad-hoc COLA	0.42
Liability Losses	<u>1.33</u>
July 1, 1999, employer contribution rate	14.48 %

### Membership

The total active membership of the Police Officers Retirement System decreased by nine to 1,039. With respect to inactive members, the number of retired members and their beneficiaries has increased from 486 as of July 1, 1998 to 514 on July 1, 1999. The number of disabled members receiving benefits remains at 46, and the number of former members with vested rights increased from 2 as of July 1, 1998 to 3 on July 1, 1999.

In total, the membership of the System, both active and inactive, has increased 2.4% from 1,564 members as of July 1, 1998 to 1,602 members as of July 1, 1999.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

### Funding Method

The funding method used for this valuation is the “aggregate accrual modification of the entry age normal cost method.” Under this method, the employer contribution has three components--the normal cost, the payment toward the unfunded actuarial liability, and the expense rate.

The normal cost is a level percent of pay cost which, along with the member contributions, will pay for projected benefits at retirement for the average plan participant. The level percent developed is called the normal cost rate and the product of that rate and payroll is the normal cost.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The expense rate is added to cover the System’s administrative expenses.

### Actuarial Value of Assets

For purposes of determining the County contribution to the plan we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on cash flow for the year and imputed returns at the actuarial assumed rate. This expected value is compared to the market value and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

### Changes Since Last Valuation

None.

# ACTUARIAL SECTION

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## ACTUARIAL ASSUMPTIONS AND METHODS

### Long Term Assumptions Used to Determine System Costs and Liabilities

#### Demographic Assumptions:

##### Mortality:

**1994 Uninsured Pensioners Mortality Table  
Annual Deaths Per 1,000 Members\***

<u>Age</u>	<u>Male Deaths</u>	<u>Female Deaths</u>	<u>Age</u>	<u>Male Deaths</u>	<u>Female Deaths</u>
20	1	0	65	16	9
25	1	0	70	26	15
30	1	0	75	40	24
35	1	1	80	67	42
40	1	1	85	105	73
45	2	1	90	164	125
50	3	2	95	251	200
55	5	2	100	341	297
60	9	5	105	441	415

\*20% of deaths are assumed to be service-connected.

#### Termination of Employment : (Prior to Normal Retirement Eligibility)

##### Annual Terminations per 1,000 Members

<u>Years of Service</u>	<u>Terminations</u>
0	100
1	75
2	50
3	50
4	30
5 or more	15

It is assumed that members who terminate before normal or early retirement age elect to receive a refund of contributions instead of vested benefits.

## ACTUARIAL ASSUMPTIONS AND METHODS

(Continued)

### Disability:

<u>Age</u>	<b>Annual Disabilities per 1,000 Members*</b>		<u>Age</u>	<b>Annual Deaths Per 1,000 Disabled Members</b>	
	<b>per 1,000 Members for Partial-Duty Contingency**</b>			<b>Male and Female</b>	
25	2	5	45	43	
30	2	5	50	48	
35	2	5	55	53	
40	2	6	60	58	
45	4	11	65	64	
50	6	17	70	73	
55	6	17	75	89	
60	6	17	80	107	

\*70% of disabilities are assumed to be service-connected, and are assumed to receive Workers Compensation benefits.

\*\*Assumes that 3 Partial-Duty officers per year are expected to receive benefit.

### Retirement:

<u>Years of Service</u>	<b>Probability of Retirement:</b>	
	<u>Hired pre-7/1/81</u>	<u>Hired post-7/1/81</u>
20	25%	N/A
21	25%	N/A
22	25%	N/A
23	25%	N/A
24	25%	N/A
25	25%	25%
26	25%	25%
27	25%	25%
28	25%	25%
29	25%	25%
30	100%	100%

# ACTUARIAL SECTION

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## ACTUARIAL ASSUMPTIONS AND METHODS

(Continued)

**Merit/Seniority Salary Increase:** (in addition to across-the-board increase)

<b><u>Years of Service</u></b>	<b><u>Merit/Seniority Increase</u></b>
0	4.0%
5	4.0%
10	1.7%
15	1.4%
20	1.1%
25	0.8%
30	0.5%

### **Family Composition:**

For purposes of valuing the pre-retirement death benefit, an assumption concerning how many employees are married is needed. The assumption used in this valuation is that 80% of employees are married at death while active and that the female spouse is 5 years younger than the male spouse. In addition, each married employee is assumed to have two children, 22 and 24 years younger than the employee.

### **Sick Leave Credit:**

It is assumed that retirees, deferred vested terminations, and deceased members receive an additional 3% of service credit due to sick leave.

## ACTUARIAL ASSUMPTIONS AND METHODS

(Continued)

### Economic Assumptions

**Investment Return:** 7.50% compound per annum.

**Cost-of-Living Benefit Increases:** 3.00% compound per annum.  
(Based on assumed CPI increase of 4%.)

**Across-the-Board Increase in County Salaries:** 4.00% compound per annum.

**Total Payroll Increase (for amortization):** 4.00% compound per annum.

**Administrative Expenses:** 0.30% of payroll.

### Changes Since Last Valuation

None.

# ACTUARIAL SECTION

## ANALYSIS OF FINANCIAL EXPERIENCE

### Gains and Loss in Accrued Liability During Years Ended June 30 Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	<i>Gain (or Loss) for Year ending June 30,</i>			
	1996	1997	1998	1999
Investment Income	\$11,064,878	\$26,316,711	\$2,262,366	\$36,306,654
Combined Liability Experience	<u>6,896,962</u>	<u>3,274,850</u>	<u>5,167,343</u>	<u>(9,545,346)</u>
Gain (or Loss) During Year from Financial Experience	\$17,961,840	\$29,591,561	\$7,429,709	\$26,761,308
Non-Recurring Items	<u>(8,161,405)</u>	<u>0</u>	<u>(2,195,961)</u>	<u>(2,668,187)</u>
Composite Gain (or Loss) During Year	<b>\$9,800,435</b>	<b>\$29,591,561</b>	<b>\$5,233,748</b>	<b>\$24,093,121</b>

## SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Year Ended June 30	Added to Rolls		Removed From Rolls		On Rolls @ Yr. End		% Increase Allowance	Average Allowance
	No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		
1994					408	10,366,273		25,408
1995	48	1,996,537	17	337,571	439	12,025,239	16.00%	27,392
1996	21	817,684	7	138,637	453	12,704,286	5.65%	28,045
1997	39	1,309,515	6	132,576	486	13,881,225	9.26%	28,562
1998	52	1,942,183	6	98,211	532	15,725,197	13.28%	29,559
1999	30	1,471,335	2	47,133	560	17,149,399	9.06%	30,624

## SOLVENCY TEST

### Aggregate Accrued Liabilities For

Valuation Date	(1) Active Member Contributions	(2) Retirees Vested Terms, Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets	Portion of Accrued Liabilities Covered by Reported Assets		
					(1)	(2)	(3)
7/1/94	\$40,263,035	\$157,869,733	\$113,479,164	\$253,506,303	100%	100%	49%
7/1/95	40,220,658	182,268,442	124,223,776	284,506,069	100%	100%	50%
7/1/96	44,117,091	202,684,707	142,115,315	343,288,369	100%	100%	68%
7/1/97	47,116,095	220,184,346	147,234,163	399,772,825	100%	100%	90%
7/1/98	48,387,340	249,724,374	144,615,551	434,259,212	100%	100%	94%
7/1/99	51,421,149	270,112,380	166,417,518	503,649,251	100%	100%	100%

## SCHEDULE OF ADDITIONS BY SOURCE

<b>Fiscal Year</b>	<b>Plan Member Contributions</b>	<b>Employer Contributions</b>	<b>Employer Contributions % of Covered Payroll</b>	<b>Net Investment Income</b>	<b>Total Revenues</b>
1995	\$5,478,181	\$10,013,355	21.89%	\$39,699,044	\$55,190,580
1996	5,874,078	10,912,200	22.24%	50,837,320	67,623,598
1997	6,030,834	11,892,690	23.64%	79,291,566	97,215,090
1998	6,235,043	11,321,194	21.79%	78,218,263	95,774,500
1999	6,861,605	10,685,734	19.40%	42,983,245	60,530,584
2000	7,521,134	11,950,073	18.40%	44,579,345	64,050,552

## SCHEDULE OF DEDUCTIONS BY TYPE

<b>Fiscal Year</b>	<b>Benefit Payments</b>	<b>Refunds of Contributions</b>	<b>Administrative Expenses</b>	<b>Total Expenses</b>
1995	10,918,230	217,976	228,122	11,364,328
1996	12,421,488	415,766	175,394	13,012,648
1997	13,252,630	268,755	140,522	13,661,907
1998	14,765,658	476,784	153,738	15,396,180
1999	16,428,235	464,747	158,989	17,051,971
2000	17,724,731	530,622	195,729	18,451,082

# STATISTICAL SECTION

## SCHEDULE OF BENEFIT PAYMENTS BY TYPE

<b>Fiscal Year Ended June 30</b>	<b>Annuity</b>	<b>Service-Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor</b>	<b>Total</b>
1995	\$9,458,977	\$839,990	\$83,159	\$536,104	\$10,918,230
1996	10,882,682	822,283	96,212	620,311	12,421,488
1997	11,610,814	815,848	98,785	727,183	13,252,630
1998	12,939,235	906,259	100,147	820,017	14,765,658
1999	14,435,055	1,030,037	102,885	860,258	16,428,235
2000	15,660,231	1,096,252	106,195	862,053	17,724,731

## SCHEDULE OF RETIRED MEMBERS BY BENEFIT TYPE

<b>Fiscal Year Ended June 30</b>	<b>Annuity</b>	<b>Service-Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor</b>	<b>Total</b>
1995	354	36	7	42	439
1996	368	33	8	43	452
1997	388	35	8	55	486
1998	431	38	8	55	532
1999	459	38	8	55	560
2000	481	38	8	56	583

## SCHEDULE OF AVERAGE MONTHLY BENEFIT AMOUNTS

<b>Fiscal Year Ended June 30</b>	<b>Annuity</b>	<b>Service-Connected Disability</b>	<b>Ordinary Disability</b>	<b>Survivor</b>	<b>Average</b>
1994	\$ 2,289	\$ 1,889	\$ 991	\$ 1,149	\$ 2,117
1995	2,473	1,930	1,055	1,188	2,283
1996	2,476	2,027	1,006	1,208	2,297
1997	2,603	2,002	1,049	1,243	2,380
1998	2,671	2,121	1,068	1,276	2,463
1999	2,753	2,362	1,095	1,310	2,563
2000	3,214	2,362	1,136	1,398	2,955